

REMARKS

This is in response to the Office Action that was mailed on April 14, 2006. Claims 1, 3, 5, 6, 8, 9, 11-13, 15, and 16 were pending in the application, of which claims 1, 3, 5, 6, and 8 stand withdrawn from consideration. Claim 9 is amended based upon claims 11, 13, and paragraph [0021] of the specification. Claims 11 and 13 are accordingly cancelled, without prejudice. New claims 17 and 18 are added, based upon claim 9 and disclosure in paragraph [0035] of the specification. The recitation of Resin Transfer Molding features in claims 17 and 18 differentiates them from the prior art. No new matter is introduced by this Amendment. With this amendment, claims 9, 11-13, and 15-18 are before the Examiner for reconsideration.

Claims 9, 15, and 16 were rejected under 35 USC § 102(b) as being anticipated by US 5,686,117 (Snyder). Office Action, pages 3-4. Claim 13 was rejected under 35 USC § 103(a) as being unpatentable over Snyder. Office Action, pages 7-8. Claim 11 was not rejected over the Snyder reference. Inasmuch as independent claim 9 has been amended to recite the feature of claim 11, Snyder neither teaches nor suggests Applicants' invention as it is currently claimed in claims 9, 13, 15, and 16.

Claims 9, 11-13, 15, and 16 were rejected under 35 USC § 103(a) as being unpatentable over US 5,654,059 (Hecht). Office Action, pages 4-7. The rejection is respectfully traversed.

One feature of the presently claimed invention is expressly recited in independent claim 9 as "removing the constraint fixture containing the compacted fibrous materials from the mold apparatus". The Examiner admits that Hecht does not teach this feature of the invention. The Examiner argues that this feature is obvious "because one of ordinary skill would recognize the productivity and cost benefits associated with" the claimed feature. This appears to combine an acknowledgement that the recited feature of Applicants' invention provides benefits with an unsubstantiated allegation that those benefits would motivate persons of ordinary skill in the art to modify the technology disclosed by Hecht precisely in the manner that Applicants have done. Applicants respectfully maintain that more is needed to support a rejection which would deprive them of their right to a patent. The Examiner goes on to argue that persons of ordinary skill

would be motivated to keep all equipment running to reduced manufacturing costs. Again, this is using a benefit of Applicants' invention to supply an element missing from the technological disclosure of the reference. The Examiner refers to other benefits of Applicants' approach to manufacturing preforms in the first full paragraph on page 6 of the Office Action. The logic of the Examiner's approach to treating the process step in question is improper in the context of a rejection. It is akin to a situation in which an applicant discovers that a chemical compound has utility, for instance, as an analgesic, and an examiner argues that it would be obvious to make the compound because it would provide an analgesic medicine. For the Examiner to properly rely on the alleged motivation put forth in the paragraph bridging pages 5-6 and in the first full paragraph on page 6 of the Office Action, he must find disclosure of that motivation somewhere in the prior art, and not simply in his own recognition of benefits of Applicants' invention.

Another feature of the presently claimed invention which the Examiner admits is not present in the Hecht disclosure is "compressing said carbon fiber materials at a pressure of about 3-10 atmospheres to form a fibrous matrix and to compact them to a density suitable for densification". The Examiner does not even allege that Hecht teaches compression at all, let alone at 3-10 atmospheres. Instead he notes that Hecht teaches different densities and different thicknesses. The Examiner's logic fails to consider that different densities and different thicknesses could be achieved by the use of different amounts of materials and/or different physical forms of materials which for instance are looser or more tightly packed. As for "optimization", that refers to finding the most suitable parameters within a prior art disclosure. The Examiner has not shown that Hecht teaches pressures that encompass or overlap with the range 3-10 atmospheres.

Withdrawal of the rejections over the Hecht reference is in order and is earnestly solicited.

Claims 9, 11, and 15 were rejected under 35 USC § 103(a) as being unpatentable over US 4,178,413 (DeMunda). Office Action, pages 8-10. Claim 13 was not rejected over the Snyder reference. Inasmuch as independent claim 9 has been amended to recite the feature of claim 13,

DeMunda neither teaches nor suggests Applicants' invention as it is currently claimed in claims 9, 11, and 15.


Withdrawal of all rejections of record – and passage of this application to Issue – are respectfully requested. The Examiner is invited to telephone Richard Gallagher (Reg. No. 28,781), at (703) 205-8008, with any questions concerning this application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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